GIORGIO GAMBA

Software Engineer

giorgiogamba97@gmail.com | +39 347 908 0756 | Turin, Italy
linkedin.com/in/giorgiogamba97 | github.com/giorgiogamba | giorgiogamba.com

PROFESSIONAL SUMMARY

Real-time systems engineer specializing in high-performance C++ for latency-critical applications. 3+ years building sub-2ms distributed systems in avionics and shipped a AA videogame to 50K+ players. Passionate about low-level optimization, concurrency and performance profiling.

TECHNICAL SKILLS

Languages: C++ (Expert), C, Java, Python, JavaScript

Frameworks: Qt, Unreal Engine, Google ProtoBuf, DDS, Keras/TensorFlow

Tools: Linux, Visual Studio, Git, Docker, CI/CD Pipelines

Specializations: Real-time Systems, Distributed Architectures, Avionics Integration, Performance Optimization, Multi-threading, Game Development

PROFESSIONAL EXPERIENCE

Software Engineer | Leonardo Electronics (via Aizoon Consulting)

June 2025 – Present

- Designing and prototyping avionics sensor integration using DDS and Google ProtoBuf for real-time data exchange across 8+ sensors, processing 10,000+ messages/second in a safety-critical environment.
- Developed a high-fidelity sensor simulator in C++ and Qt, reproducing complex avionics communication protocols with sub-2ms latency to support pre-deployment testing and validation, reducing integration testing cycles by 30%.

Software Engineer | 34BigThings

Sept 2022 – June 2025

- Led 3-engineer team for UI/UX systems implementations shipping “Carmageddon: Rogue Shift” on Steam, Xbox, and PlayStation to 50k+ players.
- Architected C++ reflection-based framework, accelerating development by 40% and eliminating +3k lines of boilerplate code across 15+ gameplay features.
- Engineered procedural race track generation tool, reducing AI training time by 60% and reducing manual level design iteration time from 60 hours to <5 hours per track.

EDUCATION

Master's Degree in Computer Science | University of Turin

December 2019 – April 2022 | Graduated with Honors (110/110 cum laude)

- Research Thesis: Embedded deep neural networks in game servers for anti-cheat detection (95% accuracy with <50ms inference latency) within MPAI Standards Committee using C#, Unity, and TensorFlow.

Bachelor's Degree in Computer Science | University of Turin

September 2016 – December 2019

SELECTED TECHNICAL PROJECTS

Avil - Audio Upscaling Detection & Spectrum Visualizer (C++, PortAudio, AVX2)

github.com/giorgiogamba/avil

- Real-time audio analysis tool implementing FFT-based frequency decomposition and AVX2-optimized signal processing for MP3 upscaling detection and command-line spectrum visualization.

SimpleSample - Mobile Audio Sampler (Flutter, Firebase)

github.com/giorgiogamba/SimpleSample

- Cross-platform mobile application with real-time sound capture, sampler/sequencer emulation, and cloud integration for users sample sharing.

ADDITIONAL INFORMATION

Languages: Italian (Native), English (Fluent - Professional Working Proficiency)
Interests: Electronic Music Production (40+ events, 200+ attendees), Home Lab (Proxmox, self-hosted infrastructure)